TO: Superintendent Dr. Rodney S. Hinton

FROM: Ashley M. Kelly

RE: Bringing Literacy to the Mathematics Curriculum

As a 7th grade math department head and teacher at PCIS for the past year, I have seen first-hand how well our teachers and curriculum are preparing students to solve everyday math problems and prepare for tests. However with the addition of the Common Core standards and a new emphasis placed on teaching literacy across content areas, I have noticed that students need additional literacy support in the math classroom. I want to propose an addition to the math curriculum in grades K-12 by implementing math literacy strategies for vocabulary and comprehension of math terminology in word problems in all classrooms on a daily basis. I would also like to have opportunities for math teachers to have professional development sessions addressing math literacy strategies in the classroom. Math literacy is the ability to understand mathematical terminology and symbols to be able to problem solve, reason, and analyze mathematically. Introducing vocabulary and using vocabulary correctly from the teacher and students will enhance numeracy in the classroom. To precisely solve problems in the classroom we can analyze word problems before math calculations are computed, and allow and expect students to read, write, and speak using math terminology.

Math literacy is a growing issue that needs to be addressed in our school district. It is a concept that needs to be implemented not just for higher scores on state and national testing, but to equip students to solve every day problems with a math concept. Not only do teachers need to teach the disciplines of arithmetic, algebra, geometry, trigonometry, and calculus; but they need to support these with strategies to comprehend real world applications to be able to apply the mathematical calculations correctly.

By embracing quantitative literacy in all math classrooms across the district, we will be fulfilling our vision of pursuing excellence on behalf of every student in every school. We will be conquering our mission to ensure each student develops into a responsible and productive citizen who is prepared for the challenges of the future. Common Core’s Mathematical Practices ensure for present and future students to be mathematically literate. Common Core has noticed that more than just procedures, calculations, operations, and properties need to be implemented into math classrooms around the nation. Mathematical problems cannot be understood, analyzed, or solved without being mathematically literate.

My proposal to implementing math literacy strategies into the classroom and supporting teachers with professional development is an ongoing event for the 2014-2015 school year. Implementing math literacy into the classroom is realistically feasible upon the cost of the execution. Within the math department, teachers could collaborate to develop training workshops and supplemental classroom materials. Since there is already professional development days scheduled within the school calendar, perhaps the math teachers could meet for a few hours during these PD days. Society is expecting citizens to understand and apply every day math problems and the workforce is demanding qualified STEM employees. Are we going to prepare our students to fill the expectations and demands for numerate citizens?